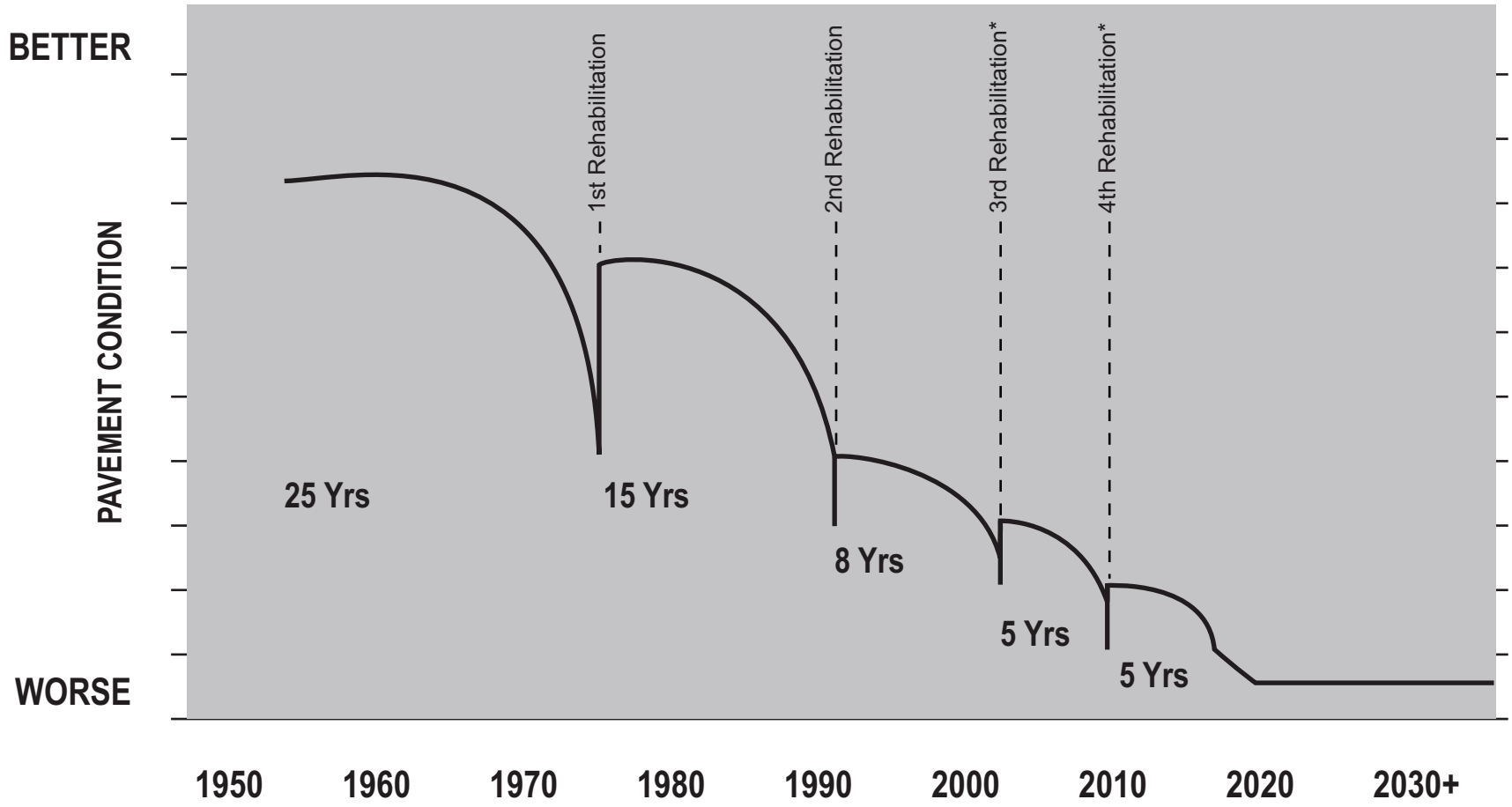
Exhibit 1-5
Number of Pavement Overlays

U.S. Department of Transportation Federal Highway Administration

Zoo Interchange

Zoo Interchange Corridor Study | ID 1060-33-01 | Milwaukee County

TB072008001MKE 1.5_Number_Pavement_Overlays_4 02.02.09 cae



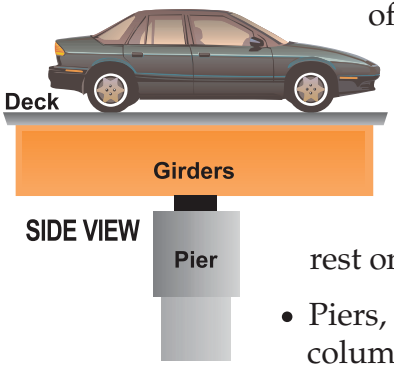
* Many states decide to reconstruct in place of further rehabilitations.

Exhibit 1-6
Pavement Life

Bridge Terminology

There are several types of construction designs for bridges.

Most Wisconsin bridges have:

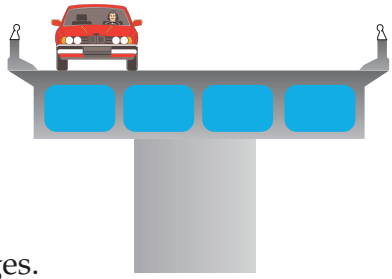


- Decks, the top surface of the bridge on which you drive
- Girders, the horizontal spans that rest on the piers
- Piers, the vertical columns that support the girders

Construction used in the Zoo Interchange

Concrete box girder

A long hollow concrete girder or "box" that rests on top of the piers. Instead of having a deck that rests on top of girders, the deck is part of one large girder.

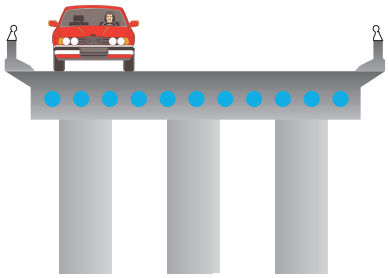


Older box girder bridges, like those found in the Zoo Interchange, have disadvantages. The main one is that the deck can't be replaced separately from the rest of the box because the deck is a part of the bridge's structure.

If the deck is removed the whole box could collapse.

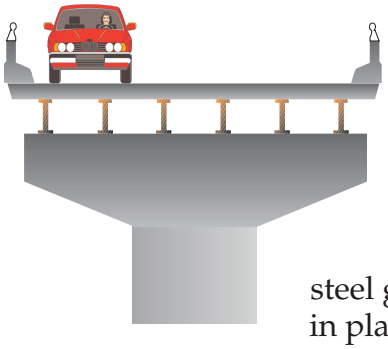
Concrete voided slab

Thinner than box girder bridges and the "box" is divided into cells.



Steel or concrete girder

A beam that supports the deck in traditional bridge design. Steel girder bridges are simple and economical. When the deck wears out, it can be removed and replaced. The steel girders remain in place.



Reinforcing Bars

Concrete is typically poured over a lattice of steel reinforcing bars called "rebar." Rebar gives concrete its strength and is used in concrete piers, girders, and decks. When cracks form in the deck allowing water to come in contact with the rebar, the rebar rusts and the concrete comes apart. This is what is happening in the Zoo Interchange. New bridges have coated rebar to reduce rusting.

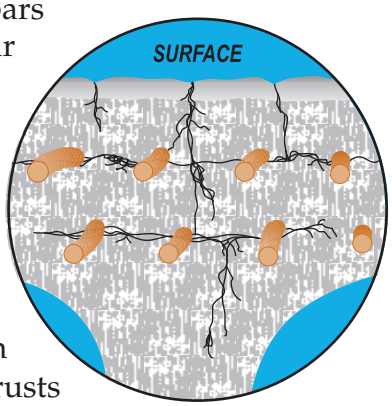


Exhibit 1-7
Bridge Terminology

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